

AWIPS SYSTEM ADMINISTRATION NOTE 11 (for Electronics Systems Analysts)

Engineering Division

W/OSO321: FJZ

SUBJECT : WAN Outage Backup/Restore Dial-up Procedure.

PURPOSE : To provide instructions on a dial-up connection to the NCF in the event of a WAN outage.

VERIFICATION STATEMENT : These procedures were verified and tested at the Pittsburgh, PA (PBZ), Pleasant Hill, MO (EAX), and Cincinnati, OH (ILN) WFO/RFCs.

SECURITY LEVEL : N/A

NOTE: ESAs are asked to make a copy of these procedures available to the operations area.

BACKGROUND

A WAN outage will cause a potential data loss unless the site initiates a back-up connection. This note provides instructions to furnish sites with a back-up dial-in capability to the NCF. Once the NCF is aware of a WAN outage, sites will be provided with a telephone number to dial into the NCF.

NOTE: If the site's dedicated WAN connection is down, call the NCF at (301) 713-1288

Since every site-to-WAN access path configuration is different, a matrix depicting the various site-to-WAN configurations is provided.

| Site-to-WAN Configuration Matrix | | |
|--|---|--|
| Site Type | Hardware Configuration | External Connections |
| CONUS Stand alone sites WFOs, National Centers (NC), or Regional Headquarters (RH) | • 1 dedicated WAN access with two frame relay permanent virtual circuits (PVCs) • 1 CSU/DSU with 2 data ports each carrying 1 frame relay | Each PVC connects to adjacent collocated WFO/RFC |

| Site-to-WAN Configuration Matrix | | |
|--|--|--|
| Site Type | Hardware Configuration | External Connections |
| CONUS RFCs (collocated RFCs) | <ul style="list-style-type: none"> ⌄ Multiple dedicated WAN access circuits ⌄ Multiple frame relay PVCs ⌄ 1 CSU/DSU for each dedicated WAN access circuit ⌄ Data port #1 of each CSU/DSU is used ⌄ Each data port carries multiple PVCs | PVCs connected to WFOs, NCs, RH, NCF and adjacent RFCs |
| Alaska Region WFOs, RFCs, collocated RFCs, and RH | <ul style="list-style-type: none"> ⌄ 2 dedicated WAN access circuits with multiple frame relay PVCs ⌄ 2 CSU/DSUs ⌄ Data port #1 of each CSU/DSU is used ⌄ Each data port carries multiple PVCs | PVCs connected to WFOs, RH, NCF and adjacent RFCs |
| Pacific Region Pacific RH, | <ul style="list-style-type: none"> ⌄ 2 dedicated T1 circuits ⌄ CSU/DSU for each dedicated circuit | Each T1 circuit connected to Tsunami Warning Center to support both WAN traffic and SBN data Stream |
| Honolulu WFO | <ul style="list-style-type: none"> ⌄ 2 dedicated T1 circuits ⌄ 2 dedicated 56 Kbps circuits ⌄ CSU/DSU for each dedicated circuit | <ul style="list-style-type: none"> ⌄ Each T1 circuit connected to Tsunami Warning Center ⌄ 1 - 56 Kbps circuit to Sacramento, CA, and 1 56 Kbps circuit to Portland, OR, RFC |
| Guam | <ul style="list-style-type: none"> ⌄ 1 dedicated T1 Circuit ⌄ CSU/DSU for each dedicated circuit | T1 circuit connected to Tsunami Warning Center |
| San Juan | <ul style="list-style-type: none"> ⌄ 2 dedicated 56 Kbps circuits ⌄ CSU/DSU for each dedicated circuit | <ul style="list-style-type: none"> ⌄ 1 - 56 Kbps circuit to New Orleans, LA, RFC ⌄ 1 - 56 Kbps circuit to Atlanta, GA RFC |

PROCEDURES

WAN Outage Backup/Restore Dial-up Procedure

The instructions below, provide a basic procedure on activating a dial-up capability to restore WAN communications. Since dial-out procedures may differ at each site, the instructions may have to be modified by the site ESA. These instructions have been incorporated into the AWIPS User's Manual, Paragraph 4.7.

In the event of a WAN outage, and the ESA or ET is not available, it will be necessary for the site forecaster to activate the back-up WAN dial-up capability. **The NCF will provide the site forecaster a 700 telephone number, which must be used to dial in to the NCF.** To initiate the back-up dial-up capability, follow these steps:

NOTE: If the equipment room and/or communications rack is usually locked, ESAs are asked to inform shift forecasters on the key's location.

1. With the keys and a flashlight, gain access to the communications room.
2. In the equipment room, at the front of the AWIPS racks, locate the communications rack marked "CP" at the top (commonly rack #2).
3. At the rear of the CP rack, open the door and locate the Terminal Interface Unit (TIU). See figure 1.
4. The TIU should have a CM-1056 equipment identifier (figure 2).
5. In the ready state, the TIU will have the DSR and RTS indicator green lights illuminated (figure 2) and have the information displayed as shown in figure 3.

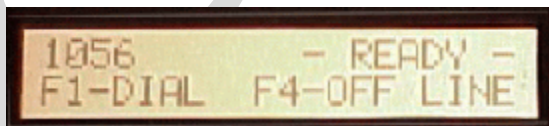


Figure 3

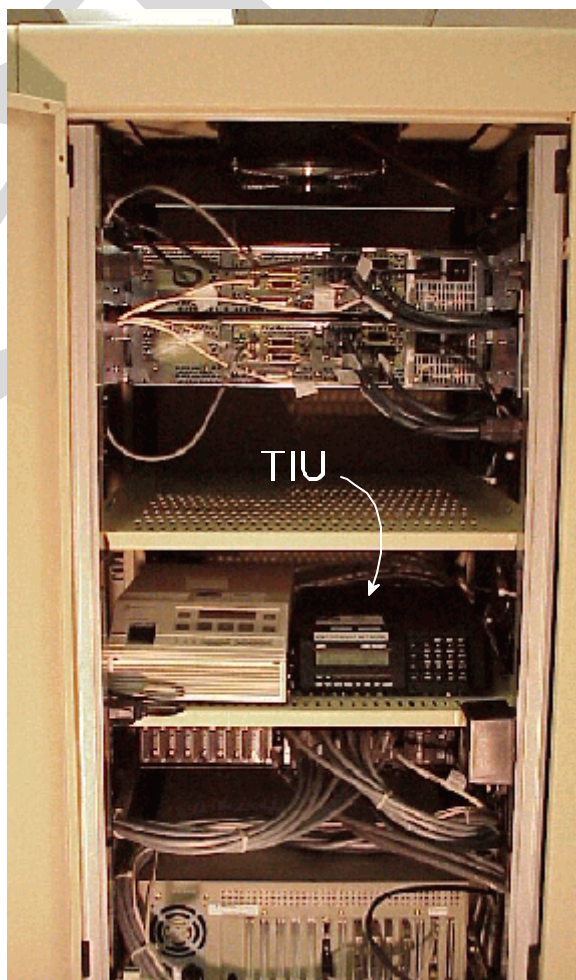






Figure 1

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Figure 2

NOTE: At an RFC, use TIU #2 to perform the dial-up procedure.

5. Using the 700 telephone number provided by the NCF perform the following steps:
 - a. From the TIU keypad, press the  key to display the last number dialed.
 - b. Press the  key until a 700 is displayed
 - c. Enter the remaining telephone numbers provided by the NCF.
 - d. Press the  key.
 - e. As the TIU dials the number, all except the "NS" and "ALARM" LEDs will flash. Once the TIU establishes a connection, only the "DSR" and "RTS" LEDs will remain lit.
6. The NCF will notify the site once the WAN connection is restored.
7. To disconnect the dial-up circuit connection, press the  key.
8. The connection restoration and stabilization through the routers and PVCs will take approximately 3 to 5 minutes.
9. Close and, if necessary, lock the CP rack door and equipment room.

10. Replace the key and flashlight

This completes the WAN outage backup/restore dial-up procedure.

REPORTING MAINTENANCE

Report the completed modification on a WS Form A-26 according to instructions in Engineering Handbook 4 (EHB-4), Part 2, and in EHB-4, Appendix H. A sample A-26 form is attached. As an additional guide use the verbiage in the information column.

| Block # | Block Type | Information |
|----------------|-------------------|--|
| 5 | Description | Perform procedure I.A.W. AWIPS System Admin Note 11 |
| 7 | Equipment Code | AWIPS |
| 8 | Serial Number | 001 |
| 15 | Comments | Performed WAN outage backup/restore dial-up procedure I.A.W. AWIPS System Administration Note 11 |
| 17a | Mod. No. | A11 |

TECHNICAL ASSISTANCE

For questions or problems regarding these back-up dial-up procedures, contact the NCF at (301) 713-1288.

John McNulty
Chief, Engineering Division

Attachment

ATTACHMENT

| | | | | | | | | | | | |
|---|--------|---|-------|--|-------------|--|----------------|--|-------------|---|--|
| WS FORM A -26 (4/94) | | WS FORM A -26 (4/94) | | | | U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL WEATHER SERVICE | | | | Document Number G 49978 | |
| ENGINEERING MANAGEMENT REPORTING SYSTEM MAINTENANCE RECORD | | | | | | | | | | | |
| General Information | | 1. Open Date 6 / 26 / 00 | | Time 0900 | | 2. Initials JMM | | 3. Response Priority (check one) <input type="radio"/> Immediate <input type="radio"/> Low <input type="radio"/> Routine <input checked="" type="radio"/> Not Applicable | | 4. Close Date 6 / 26 / 00 Time 1500 | |
| 5. Description Perform Procedure I.A.W. AWIPS System Administration Note 11 | | | | | | | | | | | |
| Equipment Information | | 6. Station ID CTP | | 7. Equipment Code AWIPS | | 8. Serial Number 001 | | 9. TM M | | 10. AT M | |
| 11. How Mal. 999 | | | | | | | | | | | |
| 12. EQUIPMENT OPERATIONAL STATUS TIMES | | a. Fully Operational <input type="text"/> | | b. Logistics Delay <input type="text"/> | | Partly Operational | | c. All Other <input type="text"/> | | d. Logistics Delay <input type="text"/> | |
| | | | | | | | | | | e. All Other <input type="text"/> | |
| 13. Parts Failure Information | | | | | | | | | | 14. Work Load Information | |
| Block # | a. ASN | b. NSN | c. TM | d. AT | e. How Mal. | f. Qty. | g. Maint. Hrs. | Type | Staff Hrs. | | |
| 1 | | | | | | | | a. Routine | | | |
| 2 | | | | | | | | b. Non-routine | | | |
| 3 | | | | | | | | c. Travel | | | |
| 4 | | | | | | | | d. Misc. | 6:00 | | |
| 5 | | | | | | | | e. Overtime | | | |
| Miscellaneous Information | | 15. Maintenance Comments Performed WAN Outage Backup/Restore Dial-up Procedure I.A.W. AWIPS System Administration Note 11 | | | | | | | | 16. Initials JMM | |
| 17. SPECIAL PURPOSE REPORTING | | a. Mod. No. A11 | | b. Mod./Act./Deact.Date 6/26/00 | | c. | | d. | | e. | |
| 18. CONFIGURATION MGMT. REPORTING (use as directed) | | ASN | | Vendor Part Number (New Part) | | Serial Number (Old Part) | | Serial Number (New Part) | | | |

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